

UNIVERSITY OF ILLINOIS

1990

THIS IS TO CERTIFY THAT THE THESIS PREPARED UNDER MY SUPERVISION BY

Holly Kay Orcutt

ENTITLED: Gender Schema Theory Revisited: A Synthesis of Two Models

IS APPROVED BY ME AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE

DEGREE OF Bachelor of Science in Liberal Arts and Sciences

Instructor in Charge

APPROVED:

HEAD OF DEPARTMENT OF.....Psychology.....

Gender Schema Theory Revisited: A Synthesis of Two Models

By

Holly Kay Orcutt

Thesis

**for the
Degree of Bachelor of Science
in
Liberal Arts and Sciences**

**College of Liberal Arts and Sciences
University of Illinois
Urbana, Illinois**

1990

Acknowledgements

I would like to thank Dr. Louise Fitzgerald for her time, energy, expertise, and advice. As my mentor, she has influenced me immeasurably.

I would also like to thank Dr. Coles for all the help he has provided me in the last three semesters, Dr. Hubert for his computer, Matthew Hasson-McInnis for his statistical consultation and friendship, Kris Hatch, Cindy Suttie, and Kim Lonsway for help with data collection and entry, and Charles Fairchild for his support throughout the program.

Table of Contents

Abstract.....	1
Introduction.....	2
Method.....	9
Subjects.....	9
Classification Method.....	9
Procedure.....	10
Results.....	11
Latency Data.....	11
Confidence Data.....	13
Summary.....	15
Discussion.....	15
References.....	21
Footnotes.....	23
Tables.....	24

Abstract

Conceptions of androgyny and the related formulation, gender schema theory, have generated a substantial body of literature. In the area of gender schemas, two competing theories, one proposed by Bem and the other by Markus, have dominated the area. The results of studies investigating these theories have been inconsistent. The present study suggests a new formulation, gender-role conflict theory, that accounts for data which have previously been viewed as incompatible. Conflict theory hypothesizes two distinct schemas. The first, a self-knowledge schema contains information about the self; the second, a gender-role appropriateness schema, contains internalized expectations regarding one's gender role. Sex-typed individuals possess gender-role appropriateness schemas whereas androgynous individuals do not. Sex-typed individuals experience conflict in situations where their self-knowledge and gender-role appropriateness schema are in opposition, whereas androgynous individuals do not experience this conflict. This conflict should result in differential latencies and confidence judgements when making decisions about the self. To test the predictions of conflict theory, 120 subjects responded to an experimental task involving willingness to endorse gender-appropriate and gender-inappropriate adjectives. Subject's response latency and confidence for each judgement were recorded. The data support a gender-role conflict interpretation.

Current formulations in cognitive science suggest that a schema is a hypothetical cognitive structure that aids in the processing of information by structuring experience, selecting what is encoded and influencing the time needed to process information. Additionally, schemas are important for problem solving and the evaluation of experience (Taylor & Crocker, 1981). A self-schema is a cognitive generalization about the self, derived through one's own experience, that organizes and directs the processing of information directly related to the self (Markus, 1977); a gender schema is thought to be a particular type of schema through which individuals organize information pertaining to the self and the world. Currently, there exist two competing gender schema theories, contributed by Bem (1981) and Markus (1982) respectively. Bem hypothesized that individuals who are strongly sex-typed are likely to process information in terms of gender even in situations where gender would not normally be salient (e.g., deciding whether a given person is male or female on the basis of their occupation). In particular, she proposed that the self-concept becomes assimilated into the gender schema, implying that gender becomes a lens through which to view the world. Androgynous individuals (i.e., those persons who are not strongly sex-typed), on the other hand, are disinclined to process the world in terms of gender; for them, gender is not a salient organizing factor.

In 1982, Markus proposed a competing model of gender schema theory developed from her work with self-schemas. She argued that it is reasonable to assume that almost everyone has some understanding of what is meant by "masculine" or "feminine", but that gender schemas exist only when this network of knowledge is used for thinking about or evaluating the self. She postulated that such a schema would be highly available and centrally involved in information processing about gender-related aspects of the self and also about gender in general. Her theory focuses on the knowledge (i.e., content) aspect of the gender schema whereas Bem's formulations are more concerned with process.

Both Bem and Markus operationalize gender schema theory in terms of the Bem Sex Roles Inventory (BSRI) (Bem, 1974). To complete the BSRI, the respondent judges the self-descriptiveness of 60 attributes (20 masculine, 20 feminine, and 20 neutral) on a seven point scale. The inventory is most commonly scored by a median-split technique; androgynous individuals are those who score above the median on both masculinity and femininity whereas undifferentiated are those who score below the median on both. Sex-typed individuals score above the median on their sex-congruent dimension and below on the other. Those defined as cross-sex-typed score above the median on their their sex-incongruent dimension and below on their sex-congruent dimension. In Bem's gender schema theory, she categorizes her subjects as sex-typed, cross-sex-typed,

androgynous, and undifferentiated. Markus, however, categorizes her subjects as masculine schematics (masculine men and masculine women), feminine schematics (feminine men and feminine women), androgynous, and undifferentiated. These differential methods of categorization prohibit direct comparisons of results from each model.

Based on her theory, Bem predicted that sex-typed individuals (masculine men and feminine women) should be faster than androgynous individuals when making sex-consistent decisions (e.g., endorsing a sex-consistent word as self-descriptive) about themselves. To test this notion, Bem projected the 60 attributes of the BSRI onto a screen one at a time and subjects responded "ME" or "NOT ME" to each. When response latency was examined, the sex-typed subjects were significantly faster than the androgynous subjects when endorsing sex-appropriate attributes and rejecting sex-inappropriate attributes. In addition, these individuals were significantly slower than the androgynous subjects when endorsing sex-inappropriate attributes or rejecting those that were sex-appropriate. The androgynous and undifferentiated subjects did not differ from each other on their judgements; Bem concluded that these groups were aschematic with respect to gender, and that the data indicated that the sex-typed individuals indeed behaved in a manner consistent with gender schema theory.

Markus (1982) tested her theory in a similar manner.

Subjects responded "ME" or "NOT ME" to the 60 attributes from the B.S.R.I.; in addition, however, they also had to indicate on a 1 to 6 scale how confident they were about each decision. Thus, her dependent variables included number of words endorsed in each category, as well as the response latency and subject's confidence in his or her judgement. Markus' masculine schematics endorsed significantly more masculine words than did feminine or androgynous schematics and significantly more masculine than feminine words; a parallel pattern was found for feminine schematics. With respect to latency, masculine schematics endorsed masculine descriptors significantly faster than did feminine schematics and responded significantly faster to masculine than feminine words. A parallel pattern was found for feminine schematics. Androgynous subjects showed no difference in response time. Masculine schematics were quicker to respond "NOT ME" to feminine words and slower to respond "NOT ME" to masculine words. A parallel pattern was found for feminine schematics. Additionally, masculine schematics were more confident about their "ME" responses to masculine words as were feminine schematics about feminine words; androgynous subjects showed no differences in confidence.

Based on these data, Markus (1982) concluded that masculine schematics have self-schemas relevant to masculinity and feminine schematics have self-schemas relevant to femininity. She sees her findings as contradicting the idea that one has a schema relevant to gender as a whole. In further contrast to

Bem, she argues that androgynous individuals possess both masculine and feminine schemas and are therefore the only group that is truly schematic for gender.

The core of the conflict between Bem and Markus is a problem of definition. Bem (1982) states that the two theories do not share a common definition of what it means to be schematic and therefore are in direct opposition. Bem's view of schemas implies the saliency of gender whereas Markus' implies only knowledge. According to Bem, the response of a sex-typed individual will depend on its appropriateness for that individual's sex; she claims that Markus' data are not inconsistent with gender schema theory because this theory does not preclude the possibility that a sex-typed individual could be more highly differentiated in one area than another. She emphasizes that gender schema theory claims only that the connotations of masculine and feminine attributes are especially salient for sex-typed individuals and not for androgynous individuals.

Markus (Crane & Markus, 1982) argues that Bem's definition of a schema is not useful, as her (Markus') data show that sex-typed individuals have self-schemata for either masculinity or femininity, and that only androgynous individuals possess both. Additionally, Markus argues that saliency and cognitive availability, aspects of Bem's gender schema theory, necessarily imply efficient processing of gender-related information. She proposes the additional criticism that, by focusing exclusively

on gender schemata, Bem obscures the differences between masculine and feminine identities. Markus claims that sex-typed individuals are not gender schematic simply because they process masculine and feminine stimuli differently, and she emphasizes the idea that a gender schema may mean different things, depending on whether one is male or female sex-typed. Markus concludes that only androgynous persons are truly gender schematic.

A study by Payne, Connor, and Colletti (1987) attempted a direct test of the two models. Payne replicated the studies reported previously by Bem and Markus and interpreted the findings as support for Markus' formulations. Unfortunately, he operationalized gender schema in a different manner than did the previous investigations, using the Personal Attributes Questionnaire (Spence, Helmreich, & Stapp, 1975) instead of the BSRI. It is unclear whether this instrument would produce the same distribution of scores as the BSRI, or whether the scores mean exactly the same thing. Thus, his results must be considered inconclusive.

The present study began as a replication of that conducted by Payne et al.; however, because the data to this date have been inconsistent, sometimes supporting Bem and sometimes Markus, it seems reasonable to suggest that both these theories may be incomplete. As a synthesis of the two models, this author proposes a gender-role conflict formulation. This theory hypothesizes that there are two distinct schemas. The first,

the self-knowledge schema, contains all the experiences regarding one's self and one's personality characteristics. The second, the gender-role appropriateness schema, consists of internalized expectations pertaining to one's gender-role. Androgynous and undifferentiated individuals do not possess a gender-role appropriateness schema and therefore make all decisions regarding the self solely on the basis of the self-knowledge schema. Sex-typed and cross-sex-typed individuals are hypothesized to possess both schemas. When making gender-role appropriate decisions, these individuals can use their self-knowledge schema because the decision is congruent with the gender-role appropriateness schema. When making gender-role inappropriate decisions, (e.g., when endorsing characteristics that are indeed self-descriptive but not consistent with their preferred gender-role), the self-knowledge schema is in conflict with the gender-role appropriateness schema; the resulting conflict produces a difference in latency and confidence between typed individuals and those who are androgynous or undifferentiated.

Whereas Bem hypothesizes that sex-typed individuals will be faster than androgynous individuals when making sex-consistent decisions, we predict that these groups will demonstrate equal latencies, as both would rely only on the self-knowledge schema. When making gender-inconsistent decisions, however, we agree with Bem's prediction that sex-typed individuals are slower than androgynous individuals because the sex-typed individuals

experience a conflict between the self-knowledge schema and the gender-role appropriateness schema.

- Gender-role conflict theory makes predictions for Markus' data structure that are identical to Markus' predictions. Masculine and androgynous individuals should respond "ME" equally quickly to masculine attributes as both are using self-knowledge schemas. Feminine individuals should be slower because of their conflicting schema. A parallel pattern would be predicted for feminine attributes.

With respect to the confidence data, we predict that individuals will be less confident about decisions that involve a conflict between the self-knowledge schema and the gender-role appropriateness schema. The present study was designed to test these predictions.

Method

Subjects

Subjects were 62 male and 61 female undergraduate students enrolled in an introductory psychology course at a large Midwestern university who received nominal credit in partial fulfillment of course requirements. Subjects were preselected on the basis of their score on the Bem Sex Role Inventory administered during their class approximately four weeks earlier.

Classification Method

Subjects were classified into four groups on the basis of their score on the Bem Sex Roles Inventory (BSRI) (Bem, 1974).

As described above, the BSRI is a paper and pencil inventory consisting of 60 items: 20 masculine, 20 feminine, and 20 neutral. Subjects judged the self-descriptiveness of each attribute on a seven point scale. The BSRI was scored according to the median split technique utilized by previous researchers; however, to avoid some of the problems with this technique (i.e., subjects whose scores fall on or by the median are classified into different groups when there may be no substantial difference in their scores) we attempted to select only subjects in the upper and lower quartiles of their categorization group. In a few instances, subjects did not meet this strenuous criterion; in these cases (<10), the most extreme scoring subjects were selected to fill out the groups. In no case did the scores fall below 60th or above 35th percentile of the distribution.

Procedure

Subjects completed the procedure in single-sex groups of approximately five, using an interactive procedure programmed by the author onto IBM/PC type workstations. Brief instructions were given verbally by a female experimenter and subjects were allowed to begin; instructions were displayed on the computer screen throughout the study. The 60 adjectives from the BSRI were presented individually on the screen. For each, the subject had to indicate the degree to which the word was self-descriptive by pressing a "1" for "ME" or a "2" for "NOT ME". After each such decision, the subjects rated how confident

they were about this judgement on a six point scale, from "1" ("not at all confident") to "6" ("very confident"). Subjects were given five practice trials with a blank screen appearing for one and a half seconds between each trial. The variables recorded on each trial included the BSRI attribute (masculine, feminine, or neutral), the self-descriptiveness decision (1 or 2), the response latency, and the confidence rating selected (1-6).

Results

Means and standard deviations for all variables appear in Tables 1 and 2.

Insert Tables 1 and 2 about here

Latency

To examine the response latencies, the data were first organized according to Bem's proposed structure: Sex-type categories included sex-typed (masculine men and feminine women), cross-sex-typed (masculine women and feminine men), androgynous, and undifferentiated. Word type categories were then defined with sex-consistent stimuli consisting of feminine words for women and masculine words for men, and sex-inconsistent stimuli consisting of feminine words for men and masculine words for women. The data were then cast into a one-between, one-within repeated measures analysis of variance, with sex-type representing the between groups measure, and word

type representing the repeated factor. The analysis was repeated for both "ME" and "NOT ME" data. These analyses appear in Table 3. As can be seen from Table 3, a significant Sex-Typed X Word-Type interaction was found, $F(6,238) = 6.665$, $p < .001$.¹ Post-hoc comparisons using the Tukey method (all post-hoc comparisons are $p < .05$ unless otherwise reported) did not reveal any significant differences between sex-typed, androgynous, and cross-sex-typed subjects responses to sex-consistent items. Androgynous and sex-typed subjects were significantly faster than undifferentiated subjects. The sex-inconsistent items did reveal group differences; Androgynous subjects performed equivalently to cross-sex-typed subjects and both performed faster than sex-typed subjects (who were equivalent to the undifferentiated subjects).

With respect to the "NOT ME" data, there was a significant effect for sex-type, with sex-typed persons responding faster than the other groups to both sex-consistent and sex-inconsistent items. No significant Sex-Typed X Word-Type interaction was found.

Insert Table 3 about here

The data were then arranged according to Markus' data structure, and the analysis repeated. For this analysis, the between groups variable was operationalized as sex-role classification (masculine, feminine, androgynous, and

undifferentiated) and the repeated factor was defined as word type (masculine, feminine, and neutral). The analysis was performed on "ME" and "NOT ME" data. The results appear in Table 4. With respect to the "ME" data, a significant Sex-Role Classification X Word-Type was found, $F(6,238) = 8.257, p < .001$. Post hoc Tukey tests revealed that for masculine items, masculine and androgynous subjects responded more quickly than either feminine or undifferentiated subjects, who were equivalent. With respect to feminine items, feminine and androgynous subjects responded more quickly than did undifferentiated subjects but not significantly differently than masculine subjects.

For the "NOT ME" data, there was no significant main effect or Sex-Role Classification X Word-Type interaction.

Insert Table 4 about here

Confidence

The analyses of the confidence data were parallel to those conducted on the latency data. The data were cast into a one-between, one-within repeated measures analysis of variance, with gender-classification representing the between groups measure, and word type representing the repeated factor. The analysis was repeated for the "ME" and "NOT ME" data.

The data were first organized according to Bem's proposed data structure; results of the analysis appear in Table 5. With

respect to the "ME" data, there was a significant Sex-Typed X Word-Type interaction, $F(6,238) = 19.308$, $p < .001$. Post-hoc Tukey tests revealed that for sex-consistent information, sex-typed subjects were as confident as androgynous subjects and both were more confident than cross-sex-typed and undifferentiated subjects who were equivalent. For sex-inconsistent information, cross-sex-typed and androgynous subjects were equally confident and both were more confident than sex-typed and undifferentiated subjects who were equivalent.

With respect to the "NOT ME" data, there was a significant Sex-Typed X Word-Type interaction, $F(6,238) = 8.512$, $p < .001$. Post-hoc Tukey tests for sex-inconsistent information revealed that cross-sex-typed, androgynous, and undifferentiated subjects were equivalent and all were significantly more confident than sex-typed subjects.

Insert Table 5 about here

The data were then organized according to Markus' data structure; these results are presented in Table 6. With respect to the "ME" data, a significant Sex-Role Classification X Word-Type interaction was found, $F(6,238) = 17.93$, $p < .001$. Post hoc Tukey tests for masculine items found that masculine and androgynous subjects were equally confident and both were significantly more confident than feminine and undifferentiated

subjects who performed equivalently. For feminine items, feminine and androgynous subjects were equally confident and both were significantly more confident than masculine and undifferentiated subjects who were equally confident.

With respect to the "NOT ME" data, a significant Sex-Role Classification X Word-Type interaction was found, $F(6,238) = 6.705$, $p < .001$. For masculine items, post-hoc comparisons revealed that feminine, androgynous, and undifferentiated subjects were equivalent and all were significantly more confident than masculine subjects. For feminine items, the masculine and androgynous subjects were significantly more confident than the feminine subjects. There were no group differences between masculine, androgynous, and undifferentiated subjects.

Insert Table 6 about here

Summary

A summary of the results regarding the critical comparisons for gender-role conflict theory are presented in Table 7.

Insert Table 7 about here

Discussion

The present study attempted to resolve some of the confusion within the literature regarding the concept of gender schemas.

Gender-role conflict theory is supported by the present findings as well as by data previously collected by Bem, Markus, and by Payne. (It should be noted that the results obtained closely replicate Payne suggesting that the PAQ can indeed be considered an equivalent measure to the BSRI.)

With respect to response latency, Bem predicts that sex-typed individuals will respond "ME" faster to sex-consistent attributes than androgynous individuals. Although her data support this prediction, they are inconsistent with the data obtained in the present study and by Payne. Bem also predicts that sex-typed individuals will be slower than androgynous individuals when making sex-inconsistent decisions. This is supported by her data, Payne's data, and by the present findings. Gender-role conflict theory predicts no differences when making sex-consistent decisions as both groups are using the self-knowledge schema. The theory does predict a difference for sex-inconsistent decisions because of the conflict involved for the sex-typed individuals, and this is indeed what was found.

With regard to the "NOT ME" data, Bem found that sex-typed individuals were slower than androgynous individuals to reject a sex-consistent attribute. The present study, however, found sex-typed and androgynous individuals have the same response speed. While, Bem's findings are consistent with gender-role conflict theory, our failure to replicate her data may not be damaging to the conflict theory approach. It seems reasonable

to suppose that for a sex-typed individual, taking on a gender-role inappropriate attribute causes more conflict than giving up a gender-role appropriate attribute.

With respect to the confidence data for Bem's data structure, Payne and the present study found that when responding ME to sex-consistent words, sex-typed and androgynous individuals are equally confident. According to gender-role conflict theory this is because both made the judgement based on their self-knowledge schema. When responding ME to sex-inconsistent words, however, sex-typed individuals are less confident than androgynous individuals. This is consistent with the notion of the conflict involved for sex-typed individuals making inappropriate decisions.

Markus predicts that masculine and androgynous individuals would respond ME to masculine words faster than feminine individuals. This prediction is supported by her data, Payne's, and the present results. This is also congruent with gender-role conflict theory because both masculine and androgynous persons are using their self-knowledge schema while the feminine persons are experiencing a conflict between the schemas which results in the slower latency. In terms of response to feminine attributes, Markus predicts that feminine and androgynous individuals should be faster to respond ME than masculine individuals. Both Payne and Markus' data support this; the data from the present study follow the predicted pattern but were not statistically significant.

In terms of confidence, Markus predicts masculine and androgynous individuals to be equally confident when responding ME to masculine words and both should be more confident than feminine individuals. The data from Payne and the present study support this. She also predicts that feminine and androgynous individuals should be equally confident when responding ME to feminine attributes and both should be more confident than masculine individuals. Both Payne's data and the present study's data support this prediction. This is consistent with the predictions made by gender-role conflict theory that individuals should be more confident about decisions made without the conflict resulting from competing schemas.

Gender-role conflict theory is able to account for all the data collected to date, even data that has been previously considered incompatible. In addition, it is consistent with data collected earlier by Bem (Bem and Lenney, 1976). Bem hypothesized that sex-typed individuals would avoid gender-inappropriate behavior. Subjects were asked to choose from masculine, feminine, or neutral activities to perform while being photographed. Sex-typed individuals were significantly more likely to select activities that were gender-appropriate and to avoid behaviors that were gender-inappropriate even when normal barriers had been removed and such avoidance cost them money. Additionally, sex-typed individuals reported feeling significantly worse than androgynous individuals after performing gender-inappropriate activities.

Another strength of gender-role conflict theory is that it is circumscribed to the domain of self-referential knowledge. Thus, this theory may avoid some of the problems other theorists have encountered when trying to generalize this phenomenon to other domains, such as clustering in free recall of non-self-referential word lists [See Spence (c.f. 1984, 1985) for a thorough criticism of gender schema theory].

Gender-role conflict theory also suggests directions for future research. For example, previous formulations are unable to clearly articulate what should be expected for undifferentiated individuals. The present theory suggests that neither androgynous nor undifferentiated individuals experience the conflict caused by a gender-role appropriateness schema; however, the reasons for this may differ for the two groups. It is suggested here that androgynous persons do not experience conflict because gender-role appropriateness is not salient for them and also because they are secure in their self-knowledge. They are very confident in their decisions about sex-consistent and sex-inconsistent information. Undifferentiated individuals, on the other hand, are much slower and less confident about their decisions. They seem to lack the knowledge of themselves as well as knowledge of societal expectations. This hypothesis could be tested in further research.

Another hypothesis suggested by this theory involves physiological measurements of stress. When sex-typed individuals are experiencing this conflict between the schemas,

they should experience stress which could be measured by measures of autonomic nervous system activity. Androgynous individuals should not show this stress. Undifferentiated individuals may because of their lack of confidence regarding their self-knowledge.

In summary, gender-role conflict theory appears both conceptually promising and heuristic in nature. Not only does it propose a resolution of previously conflicting formulations, but it is able to account for more of the data (i.e., on undifferentiated individuals) than has previously been possible. Clearly, gender-role conflict theory lends itself to further investigation.

References

- Bem, S.L. (1974). The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 42, 155-162 .
- Bem, S.L. (1981). Gender schema theory: A cognitive account of sex-typing. Psychological Review, 88, 354-364.
- Bem, S.L. (1982). Gender schema theory and self-schema theory compared: A comment of Markus, Crane, Bernstein, and Siladi's "self-schemas and gender". Journal of Personality and Social Psychology, 43, 1192-1194.
- Bem S.L., & Lenney, E. (1976). Sex-typing and the avoidance of cross-sex behavior. Journal of Personality and Social Psychology, 33, 48-54.
- Crane, M. & Markus, H. (1982). Gender identity: The benefits of a self-schema approach. Journal of Personality and Social Psychology, 43, 1195-1197.
- Markus, H. (1977). Self-schemata and processing information about the self. Journal of Personality and Social Psychology, 35, 63-78.
- Markus, H., Crane, M., Bernstein, S., & Siladi, M. (1982). Self schemas and gender. Journal of Personality and Social Psychology, 42, 38-50.
- Payne, T.J., Connor, J.M., & Colletti, G. (1987). Gender based schematic processing: An empirical investigation and re-evaluation. Journal of Personality and Social Psychology, 52, 937-945.
- Spence, J.T. (1984). Masculinity, femininity, and gender-related

- traits: A conceptual analysis of current research. In B.A. Maher (Ed.), Progress in Experimental Research (Vol. 13). New York: Academic Press.
- Spence, J.T. (1985). Gender identity and its implications for the concepts of masculinity and femininity. In T.B. Sonderegger (Ed.), Nebraska Symposium on Motivation: Psychology and Gender (Vol. 32, pp. 59-96). Lincoln: University of Nebraska Press.
- Spence, J.T., Helmreich, R.L., & Stapp, J. (1974). The Personal Attributes Questionnaire: A measure of sex-role stereotypes and masculinity-femininity. JSAS Catalog of Selected Documents in Psychology, 4, 43.
- Taylor, S.E., & Crocker, J. (1981). Schematic bases of social information processing. In E.T. Higgins, C.P. Herman, & M.P. Zanna (Eds.), Social Cognition: The Ontario Symposium. (Vol. 1, pp. 89-123). New Jersey: Lawrence Earlbaum Associates, Inc.

Footnotes

¹ Alpha was set at .01 to compensate for the large number of comparisons performed.

Table 1

Means and Standard Deviations for Response Latencies (in ms)
Organized by Bem and Markus Data Structures

Word Type	Gender	Bem Data Structure			
		ME Decisions		NOT ME Decisions	
		X	SD	X	SD
Sex-consist.	Sex-Typed	2151.19	611.67	2956.08	1002.54
	Cross-ST	2683.77	766.04	3451.82	1983.49
	Androgyn.	2233.53	714.93	3348.86	1518.47
	Undiffer.	2934.03	1065.98	3408.43	1188.91
Sex-incon.	Sex-Typed	2885.86	1221.22	2261.66	1867.84
	Cross-ST	2212.99	592.99	2931.59	1110.06
	Androgyn.	2281.82	737.12	2849.65	2050.32
	Undiffer.	3047.51	923.72	3922.86	2599.70
Neutral	Sex-Typed	2482.34	934.57	3152.23	867.84
	Cross-ST	2409.99	725.53	3179.58	964.12
	Androgyn.	2239.50	704.20	3131.31	1045.36
	Undiffer.	3013.24	1032.83	3698.84	1388.18

(table continues)

Markus Data Structure

Word Type	Gender	ME Decision		NOT ME Decision	
		X	SD	X	SD
Masculine	Masc.	2090.90	630.80	2802.57	2261.33
	Fem.	3049.40	1178.88	2961.77	1182.73
	Androg.	2306.30	697.34	3283.56	1910.03
	Undiff.	2957.62	898.90	3353.37	1111.60
Feminine	Masc.	2525.50	752.55	2926.09	922.63
	Fem.	2277.35	555.94	2932.56	1733.38
	Androg.	2209.06	751.64	2914.95	1708.76
	Undiff.	3023.92	1089.01	3977.92	2621.34
Neutral	Masc.	2475.77	774.21	3085.66	863.97
	Fem.	2414.38	893.68	3249.28	963.78
	Androg.	2239.50	704.20	3131.31	1045.36
	Undiff.	3013.24	1032.83	3698.84	1388.18

Table 2

Means and Standard Deviations for Confidence Ratings Organized
by Bem and Markus Data Structure

Word Type	Gender	Bem Data Structure			
		ME Decision		NOT ME Decision	
		X	SD	X	SD
Sex-consist.	Sex-Typed	4.96	.41	4.22	.71
	Cross-ST	4.50	.44	4.10	1.36
	Androgyn.	5.01	.40	4.48	.68
	Undiffer.	4.43	.40	4.20	.68
Sex-incon.	Sex-Typed	4.07	.64	2.36	1.81
	Cross-ST	4.91	.47	4.19	.88
	Androgyn.	4.91	.38	3.99	1.78
	Undiffer.	4.18	.52	3.98	.68
Neutral	Sex-Typed	4.45	.36	4.25	.60
	Cross-ST	4.68	.40	4.39	.63
	Androgyn.	4.77	.52	4.60	.80
	Undiffer.	4.34	.44	4.18	.83

(table continues)

Markus Data Structure

Word Type	Gender	ME Decision		NOT ME Decision	
		X	SD	X	SD
Masculine	Masc.	5.11	.30	2.97	1.79
	Fem.	4.19	.57	4.03	.90
	Androg.	4.98	.36	3.84	1.46
	Undiff.	4.37	.49	4.04	.68
Feminine	Masc.	4.38	.60	4.37	.65
	Fem.	4.76	.50	3.52	.81
	Androg.	4.94	.43	4.63	1.14
	Undiff.	4.25	.46	4.11	.69
Neutral	Masc.	4.61	.37	4.42	.54
	Fem.	4.53	.41	4.22	.67
	Androg.	4.77	.52	4.59	.79
	Undiff.	4.34	.44	4.18	.82

Table 3

Response Latency by Sex-type and Word type: Bem

<u>ME Responses</u>					
Source	SS	df	MS	F	P
A (sex-type)	.279973	3	9332434.6	5.740	.001
Error	.193474	119	1625831.2		
B (wordtype)	721228.5	2	360614.3	1.289	ns
A X B	.111851	6	1864180.9	6.665	.001
Error	.665694	238	279703.5		

<u>NOT ME Responses</u>					
Source	SS	df	MS	F	P
A (sex-type)	.363362	3	.121121	3.658	.01
Error	.394042	119	3311273.7		
B (wordtype)	7348083.7	2	3674041.8	1.862	ns
A X B	.178743	6	2979054.3	1.510	ns
Error	.469547	238	1972885.6		

Table 4

Response Latency by Sex-Role Classification and Word Type:Markus

<u>ME Responses</u>					
Source	SS	df	MS	F	P
A (sex-role)	.299077	3	9969244.9	6.193	.001
Error	.191563	119	1609777.1		
B (wordtype)	551776.0	2	275888.005	1.018	ns
A X B	.134221	6	2237011.8	8.257	.001
Error	.644819	238	270932.2		

<u>NOT ME Responses</u>					
Source	SS	df	MS	F	P
A (sex-role)	.296540	3	9884672.4	2.935	ns
Error	.400724	119	3367426.9		
B (wordtype)	2246142.9	2	1123071.5	.553	ns
A X B	9012436.1	6	1502072.7	.729	ns
Error	.483728	238	2032469.8		

Table 5

Confidence Rating by Sex-Type and Word Type: Bem

<u>ME Responses</u>					
Source	SS	df	MS	F	P
A (sex-type)	17.5	3	5.836	15.554	.001
Error	44.7	119	.375		
B (wordtype)	2.968	2	1.484	12.349	.001
A X B	13.9	6	2.320	19.308	.001
Error	28.598	238	.120		

<u>NOT ME Responses</u>					
Source	SS	df	MS	F	P
A (sex-type)	29.1	3	9.686	6.008	.001
Error	191.8	119	1.612		
B (wordtype)	37.4	2	18.675	22.512	.001
A X B	42.4	6	7.061	8.512	.001
Error	197.4	238	.830		

Table 6

Confidence Rating by Sex-Role Classification and Word Type:Markus

<u>ME Responses</u>					
Source	SS	df	MS	F	P
A (sex-role)	17.5	3	5.820	15.491	.001
Error	44.7	119	.376		
B (wordtype)	.685	2	.342	2.655	ns
A X B	13.875	6	2.313	17.93	.001
Error	30.697	238	.129		

<u>NOT ME Responses</u>					
Source	SS	df	MS	F	P
A (sex-role)	11.8	3	3.942	2.244	ns
Error	209.1	119	1.757		
B (wordtype)	25.8	2	12.907	14.379	.001
A X B	36.1	6	6.018	6.705	.001
Error	213.6	238	.898		

Table 7

Critical Comparisons for Gender-Role Conflict Theory

Bem's Data Structure

<u>Sex-Inconsist. Attrib.</u>	ME Decisions	NOT ME Decisions
Latency	ST>A	A=ST
Confidence	A>ST	A>ST
<u>Sex-Consist. Attrib.</u>	ME Decisions	NOT ME Decisions
Latency	A=ST	A=ST
Confidence	A=ST	A=ST

Markus' Data Structure

<u>Masculine Attributes</u>	ME Decisions	NOT ME Decisions
Latency	F>M=A	F=M=A
Confidence	F<M=A	F=A>M
<u>Feminine Attributes</u>	ME Decisions	NOT ME Decisions
Latency	F=A=M	F=A=M
Confidence	M<F=A	F<M=A

ST=sex-typed; A=androgynous; M=masculine; F=feminine